

IN THE CLAIMS

1-6. (Canceled)

7. (Previously Presented) The assembly according to claim 21, wherein the pin displacement calibration feature includes the resilient element biasing the pin with respect to the overmolded cap and a first locator adjusting the position of the resilient element with respect to the overmolded cap.

8. (Original) The assembly according to claim 7, wherein the pin displacement calibration feature further includes a second locator connecting the resilient element with respect to the pin.

9. (Original) The assembly according to claim 7, wherein the resilient element includes a coil spring.

10. (Original) The assembly according to claim 7, wherein the first locator threadably engages the overmolded cap.

11. (Previously Presented) The assembly according to claim 21, wherein the overmolded cap further includes a locking feature adapted for releasable retaining an electrical connector with respect to the connection body formation.

12. (Previously Presented) The assembly according to claim 21, wherein the overmolded cap further includes a snap fastening feature adapted for securing the overmolded cap to a mount.

13. (Original) The assembly according to claim 12, wherein the snap fastening feature is adapted for enabling the connection body formation to be reoriented with respect to the mount.

14. (Original) The assembly according to claim 7, further comprising:
at least one bearing unit guiding displacement of the pin with respect to the cap;
a stator at least partially encapsulated by the overmolded cap and magnetically connected to a magnetic field created by the electric current flowing through the wire; and
an armature portion of the pin responsive to the magnetic field.

15. (Original) The assembly according to claim 14, wherein the resilient element includes a coil spring, the pin displacement calibration feature further includes a second locator connecting the coil spring with respect to the pin, and the first locator threadably engages the overmolded cap.

16. (Previously Presented) The assembly according to claim 15, wherein the overmolded cap further includes a locking feature adapted for releasably retaining an electrical connector with respect to the connection body formation, and also further includes a snap fastening feature that enables the connection body formation to be reoriented with respect to a mount having the valve seat that receives the pin to control fluid flow.

17-20. (Canceled)

21. (Currently Amended) A purge solenoid valve assembly having a valve driven by a solenoid, the assembly comprising:

a pin displacement calibration feature;
a bobbin including a hollow core, and having first and second flanges;
a wire wound around the bobbin between the first and second flanges;
at least one terminal electrically connected to the wire;
a pin extending the whole length through the hollow core ~~between~~ from the first and flange to the second flanges flange;
a resilient element biasing the pin;
an overmolded cap defining a first cavity and a second cavity spaced from the first cavity, the first cavity contiguously engaging the first and second flanges and generally encapsulating the bobbin and the wire, the second cavity housing the pin displacement calibration feature and the resilient element, the overmolded cap including a connector body formation partially encapsulating the at least one terminal; and
a valve seat including an aperture sized to receive an end portion of the pin so as to occlude the aperture, the pin being displaceable along a longitudinal axis with respect to the bobbin when an electric current flows through the wire.

22. (Previously Presented) The assembly according to claim 21, wherein the valve seat is disposed at an outlet of the assembly.

23. (Previously Presented) The assembly according to claim 22, further comprising: an elastomeric member disposed on the pin, the elastomeric member effectively sealing the aperture of the valve seat to prohibit flow through the valve seat when the end portion is disposed in the aperture.

24. (Original) The assembly according to claim 23, wherein the elastomeric member comprises an O-ring.

25. (Currently Amended) A purge solenoid valve assembly having a valve driven by a solenoid, the assembly comprising:
a bobbin including a hollow core, and having first and second flanges;
a wire wound around the bobbin between the first and second flanges;
at least one terminal electrically connected to the wire; and
a pin extending along a longitudinal axis the whole length through the hollow core between from the first and flange to the second flanges flange, the pin having a first portion at least partially surrounded by the bobbin and adjacent a second portion, the first portion having a first cross-sectional area greater than a second cross-sectional area of the second portion, the first cross-sectional area being non-decreasing in a direction toward the second portion along the longitudinal axis, and the pin being displaceable along the longitudinal axis with respect to the bobbin when an electric current flows through the wire;
a pin displacement calibration feature;
a resilient element biasing the pin;
an overmolded cap defining a first cavity and a second cavity spaced from the first cavity, the first cavity contiguously engaging the first and second flanges and generally encapsulating the bobbin and the wire, the second cavity housing the pin displacement calibration feature and the resilient element, the overmolded cap including a connector body formation partially encapsulating the at least one terminal;
a body including a portion surrounding the overmolded cap, the body including first and second flow tubes; and

a valve seat being supported by the body, the valve seat including an aperture sized to receive the second portion of the pin so as to occlude the aperture.

26. (Original) The assembly according to claim 25, wherein the overmolded cap comprises a snap feature, and the body comprises a lip matingly engaging with the snap feature.